What is claimed is:

1.　　An　apparatus　having　an　execution　unit　for executing　a　machine　language,　compiling　a　source
5　program　into　a　machine　language　directly　executable by　the　execution　unit,　and　executing　the　machine language　in　a　just-in-time-compiler　system, comprising:

a　storage　unit　storing　for　each　function　a
10　machine　language　executable　by　the　execution　unit obtained　by　compiling　a　function　described　in　the source　program,　and　maintaining　stored　data although　a　power　supply　voltage　has　dropped;

a　compiling　unit　compiling　the　source　program
15　into　a　machine　language　executable　by　the　execution unit;

a　storage　control　unit　storing　the　machine language　compiled　by　said　compiling　unit;

a　determination　unit　determining　whether　or
20　not　a　machine　language　obtained　by　compiling　a function　used　in　the　source　program　is　stored　in said　storage　unit;　and

an　execution　control　unit　instructing　the execution　unit　to　directly　execute　either　a　machine
25　language　compiled　by　said　compiling　unit　or　a

machine language stored in said storage unit depending on a determination result obtained by said determination unit.

5   2.   The apparatus according to claim 1, wherein said storage unit stores in advance a machine language obtained by compiling a function which can be used in the source program.

10   3.   The apparatus according to claim 1, further comprising

semiconductor memory copying and storing data stored in said storage unit, wherein

said execution control unit instructs the

15   execution unit to execute a machine language copied from the data stored in said storage unit and stored in said semiconductor memory instead of instructing the execution unit to execute a machine language stored in said storage unit.

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4.   The apparatus according to claim 1, wherein said source program is described in Java byte code.

25   5.   An apparatus having an execution unit for

executing a machine language, compiling a source program into a machine language directly executable by the execution unit, and executing the machine language in a just-in-time-compiler system,

5   comprising:

a storage unit storing for each function a machine language executable by the execution unit obtained by compiling a function described in the source program, and maintaining stored data after

10   the source program has been executed;

a compiling unit compiling the source program into a machine language executable by the execution unit;

a storage control unit storing the machine

15   language compiled by said compiling unit corresponding to update date and time of the source program compiled by said compiling unit;

a determination unit determining whether or not the update date and time of the source program

20   matches an update date and time corresponding to the machine language stored in said storage unit; and

an execution control unit instructing the execution unit to directly execute either a machine

25   language compiled by said compiling unit or a

machine language stored in said storage unit depending on a determination result obtained by said determination unit.

5   6.   The apparatus according to claim 5, further comprising

a read unit reading a program file storing the source program, wherein

said storage control unit stores the machine
10   language in said storage unit by assuming that the update date and time of the program file indicated in the program file is the update date and time of the source program corresponding to the machine language; and
15   said determination unit determines whether or not the update date and time of the program file indicated in the program file matches the update date and time stored in said storage unit corresponding the machine language.
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7.   The apparatus according to claim 5, wherein
said source program is described in Java byte code.

25   8.   An apparatus having execution means for

executing a machine language, compiling a source program into a machine language directly executable by said execution means, and executing the machine language in a just-in-time-compiler system,

5 comprising:

storage means for storing for each function a machine language executable by the execution means obtained by compiling a function described in the source program, and maintaining stored data

10 although a power supply voltage has dropped;

compiling means for compiling the source program into a machine language executable by the execution means;

storage control means for storing the machine

15 language compiled by said compiling means;

determination means for determining whether or not a machine language obtained by compiling a function used in the source program is stored in said storage means; and

20 execution control means for instructing the execution means to directly execute either a machine language compiled by said compiling means or a machine language stored in said storage means depending on a determination result obtained by

25 said determination means.

9.   An   apparatus   having   execution   means   for executing   a   machine   language,   compiling   a   source program   into   a   machine   language   directly   executable

5   by   the   execution   means,   and   executing   the   machine language   in   a   just-in-time-compiler   system, comprising:

storage   means   for   storing   for   each   function   a machine   language   executable   by   the   execution   means

10   obtained   by   compiling   a   function   described   in   the source   program,   and   maintaining   stored   data   after the   source   program   has   been   executed;

compiling   means   for   compiling   the   source program   into   a   machine   language   executable   by   the

15   execution   means;

storage   control   means   for   storing   the   machine language   compiled   by   said   compiling   means corresponding   to   update   date   and   time   of   the   source program   compiled   by   said   compiling   means;

20   determination   means   for   determining   whether   or not   the   update   date   and   time   of   the   source   program matches   an   update   date   and   time   corresponding   to the   machine   language   stored   in   said   storage   means; and

25   execution   control   means   instructing   the

execution means to directly execute either a machine language compiled by said compiling means or a machine language stored in said storage means depending on a determination result obtained by

5   said determination means.

10.   A method for executing a program based on a just-in-time-compiler system for compiling a source program into a machine language directly executable

10   on a platform of a specific processing system, and executing the machine language, comprising:

storing in a storage unit, which maintains stored data although a supply voltage has dropped, the machine language obtained by compiling the

15   source program for each function expressed in the source program;

determining whether or not the machine language obtained by compiling the function described in the source program is stored in the

20   storage unit; and

setting either the machine language obtained by compiling the source program or the machine language stored in the storage unit to be directly executed on a platform of a specific processing

25   system based on a determination result.

11.　A method for executing a program based on a
just-in-time-compiler system for compiling a source
program into a machine language directly executable
5　　on a platform of a specific processing system, and
executing the machine language, comprising:

　　　　storing the machine language obtained by
compiling the source program for each function
described in the source program corresponding to an
10　　update date and time of the source program before
compiled into a machine language;

　　　　determining whether or not the date and time
of the update of the source program matches an
update date and time corresponding to the stored
15　　machine language; and

　　　　setting either the machine language obtained
by compiling the source program or the machine
language stored in the storage unit to be directly
executed on a platform of a specific processing
20　　system based on a determination result.

12.　A computer-readable storage medium storing a
computer program used to direct a computer based on
a just-in-time-compiler system to compile a source
25　　program into a machine language directly executable

on a platform of a specific processing system, and execute the machine language, comprising:

storing in a storage unit, which maintains stored data although a supply voltage has dropped,

5　the machine language obtained by compiling the source program for each function expressed in the source program;

determining whether or not the machine language obtained by compiling the function

10　described in the source program is stored in the storage unit; and

setting either the machine language obtained by compiling the source program or the machine language stored in the storage unit to be directly

15　executed on a platform of a specific processing system based on a determination result.

13.　A computer-readable storage medium storing a computer program used to direct a computer based on

20　a just-in-time-compiler system to compile a source program into a machine language directly executable on a platform of a specific processing system, and execute the machine language, comprising:

storing the machine language obtained by

25　compiling the source program for each function

described in the source program corresponding to an update date and time of the source program before compiled into a machine language;

determining whether or not the date and time

5   of the update of the source program matches an update date and time corresponding to the stored machine language; and

setting either the machine language obtained by compiling the source program or the machine

10   language stored in the storage unit to be directly executed on a platform of a specific processing system based on a determination result.

14.   A computer program embodied on a transmission

15   medium used to direct a computer based on a just-in-time-compiler system to compile a source program into a machine language directly executable on a platform of a specific processing system, and execute the machine language, comprising:

20   storing in a storage unit, which maintains stored data although a supply voltage has dropped, the machine language obtained by compiling the source program for each function expressed in the source program;

25   determining whether or not the machine

language obtained by compiling the function described in the source program is stored in the storage unit; and

5   setting either the machine language obtained by compiling the source program or the machine language stored in the storage unit to be directly executed on a platform of a specific processing system based on a determination result.

10   15. A computer program embodied on a transmission medium used to direct a computer based on a just-in-time-compiler system to compile a source program into a machine language directly executable on a platform of a specific processing system, and

15   execute the machine language, comprising:

        storing the machine language obtained by compiling the source program for each function described in the source program corresponding to an update date and time of the source program before

20   compiled into a machine language;

        determining whether or not the date and time of the update of the source program matches an update date and time corresponding to the stored machine language; and

25   setting either the machine language obtained

by compiling the source program or the machine language stored in the storage unit to be directly executed on a platform of a specific processing system based on a determination result.

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16. A computer data signal embodied in a carrier wave containing a computer program used to direct a computer based on a just-in-time-compiler system to compile a source program into a machine language

10 directly executable on a platform of a specific processing system, and execute the machine language, said computer program comprising:

storing in a storage unit, which maintains stored data although a supply voltage has dropped,

15 the machine language obtained by compiling the source program for each function expressed in the source program;

determining whether or not the machine language obtained by compiling the function

20 described in the source program is stored in the storage unit; and

setting either the machine language obtained by compiling the source program or the machine language stored in the storage unit to be directly

25 executed on a platform of a specific processing

system based on a determination result.

17.   A computer data signal embodied in a carrier wave containing a computer program used to direct a
5   computer based on a just-in-time-compiler system to compile a source program into a machine language directly executable on a platform of a specific processing system, and execute the machine language, said computer program comprising:
10   storing the machine language obtained by compiling the source program for each function described in the source program corresponding to an update date and time of the source program before compiled into a machine language;
15   determining whether or not the date and time of the update of the source program matches an update date and time corresponding to the stored machine language; and
            setting either the machine language obtained
20   by compiling the source program or the machine language stored in the storage unit to be directly executed on a platform of a specific processing system based on a determination result.

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